

**Commonwealth of Kentucky  
Division for Air Quality**

**PERMIT APPLICATION SUMMARY FORM**

Completed by: Julian D. Breckenridge

GENERAL INFORMATION:

Name:	Close the Loop, Inc.
Address:	2051 Meridian Place Hebron, KY 41048
Date application received:	9/27/2007
SIC Code/SIC description:	5093, Scrap and Waste Materials (merchant wholesalers)
Source ID:	21-015-00162
Agency Interest:	97932
Activity:	APE20070001
Permit:	F-07-057

APPLICATION TYPE/PERMIT ACTIVITY:

<input checked="" type="checkbox"/> Initial issuance	<input type="checkbox"/> General permit
<input type="checkbox"/> Permit modification	<input checked="" type="checkbox"/> Conditional major
__Administrative	<input type="checkbox"/> Title V
__Minor	<input type="checkbox"/> Synthetic minor
__Significant	<input type="checkbox"/> Operating
<input type="checkbox"/> Permit renewal	<input checked="" type="checkbox"/> Construction/operating

COMPLIANCE SUMMARY:

<input type="checkbox"/> Source is out of compliance	<input type="checkbox"/> Compliance schedule included
<input type="checkbox"/> Compliance certification signed	

APPLICABLE REQUIREMENTS LIST:

<input type="checkbox"/> NSR	<input type="checkbox"/> NSPS	<input checked="" type="checkbox"/> SIP
<input type="checkbox"/> PSD	<input type="checkbox"/> NESHAPS	<input type="checkbox"/> Other
<input type="checkbox"/> Netted out of PSD/NSR	<input type="checkbox"/> Not major modification per 401 KAR 51:001, 1(116)(b)	

MISCELLANEOUS:

- ☐ Acid rain source
- ☐ Source subject to 112(r)
- ☒ Source applied for federally enforceable emissions cap
- ☐ Source provided terms for alternative operating scenarios
- ☐ Source subject to a MACT standard
- ☐ Source requested case-by-case 112(g) or (j) determination
- ☐ Application proposes new control technology
- ☐ Certified by responsible official
- ☒ Diagrams or drawings included
- ☐ Confidential business information (CBI) submitted in application
- ☐ Pollution Prevention Measures
- ☐ Area is non-attainment (list pollutants):

**EMISSIONS SUMMARY:**

<b>Pollutant</b>	<b>Potential (tpy)</b>
<b>PM/PM<sub>10</sub></b>	<b>&lt; 90</b>
<b>VOC</b>	<b>&lt; 90</b>
<i>Single HAPs</i>	
Ethyl Benzene	0.324
Styrene	5.83
Toluene	0.346
Xylene	0.670
Combined HAPs	7.17

**SOURCE DESCRIPTION:**

Close the Loop, Inc. proposes to own and operate a production facility in Hebron, Kentucky, to recycle spent copier toner and printer ink cartridges. The facility will recover toner powder, ink, plastics, metals and foam. Most of the recovered materials will be sold to off-site companies for use as raw materials in manufacturing processes. Close the Loop will also manufacture a plastic-based product called eWood that is made from recovered plastic, toner powder and ink. In the process, the toner cartridges will be received and cracked open by a shredder, causing the toner powder to be released and collected by a dust collector. The shells of the toner cartridges are crushed, and various plastic and metal components are collected. Eventually, the plastic pieces are processed in a grinder to size them for extrusion in the eWood line or for resale. The ink jet cartridges will also be received and disassembled in order to remove the ink. The ink is collected in drums or totes for reuse in the pelletizing line. The plastic, metal components, and polyurethane foam of the cartridges are collected while the plastic shells are processed in a grinder to size them for extrusion in the eWood line or for resale. In the pelletizing line, the toner and ink collected are mixed in a mixer. The mixed material is then pressure-formed into small pellets for reuse in the eWood lines or for resale to off-site users. The grinded plastic and pellets are used as feedstock for the extruder to produce eWood.

On September 27, 2007 the Division of Air Quality received an application from Close the Loop, Inc. for an initial conditional major permit under 401 KAR 52:030. The application was deemed complete on December 17, 2007. The source has maximum allowable emissions of 162 tons per year of particulate matter (PM/PM<sub>10</sub>), based on emission limits from 401 KAR 59:010 and maximum uncontrolled emissions of 221 tons per year of volatile organic compounds (VOC). The source requested VOC and PM<sub>10</sub> limits below major source thresholds. Even though potential emissions for

single hazardous air pollutants (HAP) and combined HAP are below major source thresholds, the source also requested federally enforceable limits for single and combined HAPs.

**EMISSIONS AND OPERATING CAPS DESCRIPTIONS:**

Close the Loop, Inc. has applied to operate under federally enforceable permit limits of less than 90 tons per year each of PM<sub>10</sub> and VOC, less than 9 tons per year of any single hazardous air pollutant (HAP) and less than 22.5 tons per year of combined HAPs.

**OPERATIONAL FLEXIBILITY:**

The source is not restricted as to hours of operation or quantity of product produced, while remaining within the caps above.